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THE FOOD, AGRIBUSINESS AND RURAL MARKETS (FARM) PROJECT

Produce Assessment Conducted in Eastern Equatoria State

Contract No.: EDH-I-00-05-00005-00

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Abt Associates Inc. | 4550 Montgomery Avenue | Suite 800 North |
Bethesda, Maryland 20814 | T. 301.347.5000 | F. 301.913.9061 |
www.abtassociates.com

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The author's views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

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ACRONYMS AND ABBREVIATIONS

EES	Eastern Equatoria State
FARM	Food, Agribusiness and Rural Markets Project
GAP	Good agronomic practices
M&E	Monitoring and evaluation
NGO	Nongovernmental organization
USAID	United States Agency for International Development

BRIEF BACKGROUND

The Food, Agribusiness and Rural Markets (FARM) Project, funded by the United States Agency for International Development (USAID), operates in the Greenbelt Zone of the Republic of South Sudan to help farmers improve their livelihoods through introducing and encouraging farmers to adopt modern agricultural production technologies and increase trade. One of the project components is tasked with helping farmers access markets. To create and strengthen business relationships between the value chain actors, the project organized forums for farmers and traders to ascertain key challenges impeding business relations. From these forums, it was clear that loose business relationships exist between the value chain actors, exacerbated by the lack of proper market information systems in the whole of South Sudan. To curb this impediment, the project has embarked on information collection, analysis, and dissemination strategies. A survey tool was developed to collect and analyze information from farmers and to share this information with traders.

1. OBJECTIVES OF INFORMATION COLLECTION

The main aims of collecting and analyzing sales data are to:

- Link farmers with surplus to markets and assess existing business relations that allow farmers to sell with limited or no support from the project
- Understand highly productive areas in Eastern Equatoria State (EES) within the project's area of operation, to enable the project to guide the private sector in investment decisions on storage facilities

2. METHODOLOGY

Sales data collection was piloted in Eastern Equatoria State within three counties: Magwi, Ikwotos, and Torit.[1] These counties were selected because the FARM Project planned to pilot market development initiatives in the Torit main market and because traders needed to understand production volumes before the next farmer trader forum. Data collection for the 2012 first-season harvest focused on farmers who received grant seed from the project, to link them with markets or assess whether they are able to sell their produce.

The survey tool developed by the project's technical team was designed to gather both qualitative and quantitative information on maize, sorghum, cassava, and groundnuts, the four focus crops of the project. To enable extension workers to gather data with minimal errors, the Senior Extension Officer for EES conducted one-on-one training for the nine extension workers. A total of 2,300 questionnaires were printed and distributed to all project-supported farmers in EES; 800 questionnaires were completed and received. Others were lost, or there was no produce information to provide.

A hired company entered the information that was collected in a Microsoft Access database developed by the project's Monitoring and Evaluation (M&E) Specialist. This followed a debrief by the project's Marketing and M&E Specialists. During data entry, the company worked closely with the M&E Specialist to enter and clean the data, a four-day process. Analysis with Microsoft Excel generated simple statistics.

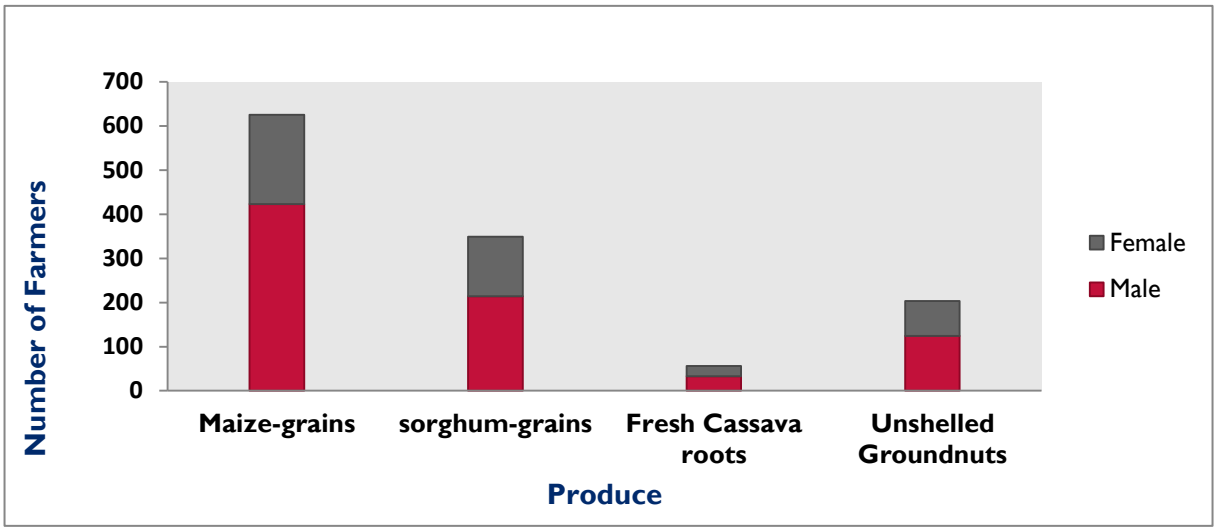
2.1. SUMMARY RESULTS

The demographics of the farmers for each of the crops are detailed in Annexes 3 through 6. The number of maize farmers was 584; sorghum, 349; groundnuts, 240; and cassava, 56. The number of maize grain growers is higher because maize has become the principal traded crop in the survey area. As for sorghum, only 17 percent[1] of farmers had surplus sorghum at the time of the assessment because few farmers are planting short-season sorghum, and those that do cultivate it in the second season. The long-season sorghum only matures for the second-season harvest. This is to avoid losses, particularly from the sorghum midge. Finally 9.7 percent[2] of farmers surveyed had surpluses. Fresh cassava roots were produced by fewer farmers compared to the other crops, reflecting the perishability of cassava as well as its greater role as a food security crop and lesser role as a market crop. Farmers from Torit received cassava cuttings in the first season of 2012, hence the crop was still in the field *(see* Table 1).

[1] According to the seed distribution list for 2012, 2,043 farmers received seed grant in EES. The data shows 349 with surpluses for sorghum grain.

[2] Seed distribution list 2012: 2,086 farmers received groundnut seed grain in EES and only 203 farmers had surpluses.

Figure 1: Farmers Interviewed per Crop



2.2. CROP PRODUCTION BY GENDER PER COUNTY

In some areas, men and women tend to grow different crops.[3] One frequently heard distinction is that cash crops and export crops are "male crops," while subsistence crops are "female crops."[4] However it is complicated to classify certain crops[5] as food or cash crops; frequently, high-yield varieties are considered cash crops whereas local varieties are considered food crops. Farmers also tend to have particular fields that are cultivated for either subsistence or market. Men have more involvement in the fields being produced for market. The project introduced high-yield varieties to help farmers generate marketable surplus, particularly through the introduction of the maize variety Longe 5 and groundnut varieties resistant to rosette.

Overall results show that in the three counties, women are participating in agricultural production and marketing, although the percentage varies from one area to another.

In Torit County, farmers had surpluses for maize and groundnuts. The majority (87 percent) who produced maize grains were male, implying that households in Torit County still rely on sorghum as their staple crop and maize is being cultivated as a cash crop. For groundnuts, 61 percent of men and 39 percent of women had marketable surpluses. In Torit, men have higher percentages than women for all the crops available. This could be because women there still have limited access to inputs (land, seeds, credit, information, or markets).

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[3] Udry, Christopher, John Hoddinott, Harold Alderman, and Lawrence Haddad. "Gender Differentials in Farm Productivity: Implications for Household Efficiency and Agricultural Policy." *Food Policy.* Volume 20 #5. October 1995. p. 407-423.

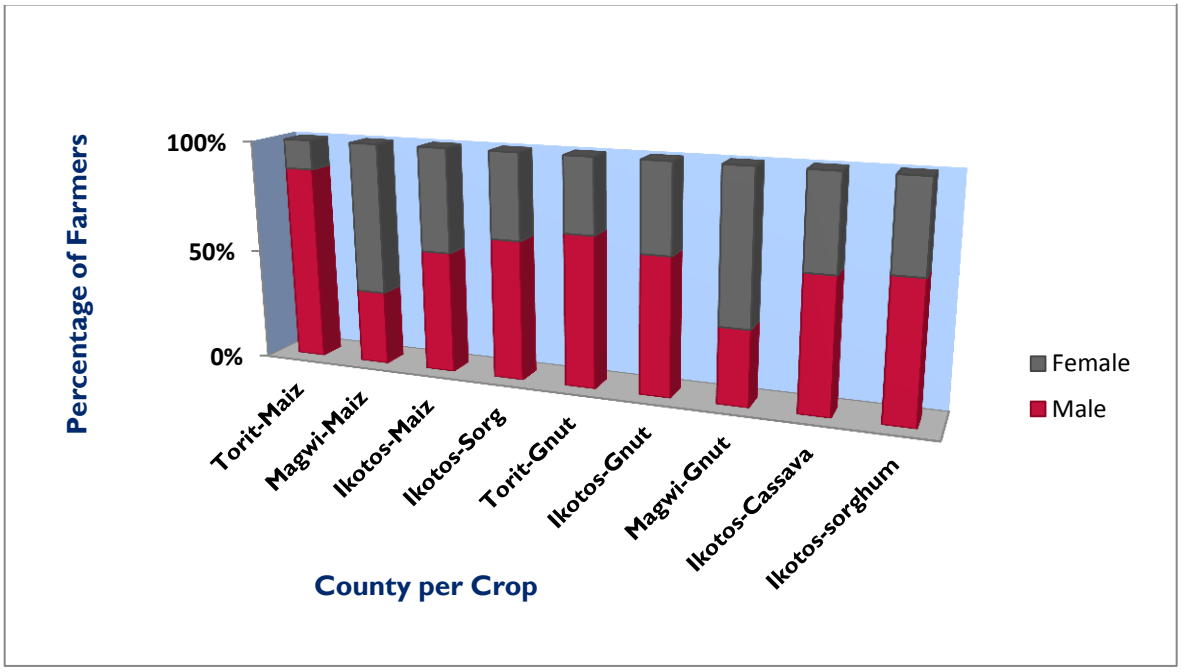
[4] Kumar, S. K. "Women's role and agricultural technology." In: J.W. Mellor et al. (Eds.) *Accelerating Food Production in Sub-saharan Africa.* Johns Hopkins University Press. Baltimore, MD, 1987; Koopman, J. "The hidden roots of the African food problem: looking within the rural household." In: N. Folbre et al. (Eds.) *Women's Work in the World Economy.* University Press. New York, NY, 1993. pp. 82-103.

[5] Doss, Cheryl R. "Designing Agricultural Technology for African Women Farmers: Lessons from 25 Years of Experience." *World Development.* December 2001.

In Magwi County, farmers interviewed had maize grain and groundnut surpluses. The results of the assessment showed that 67 percent of those with marketable maize grains are women and 33 percent are men. The majority (66 percent) of the farmers with groundnuts surpluses were women and 34 percent were men. This is further evidenced by the fact that in Magwi, 52 percent[6] of project beneficiaries who received improved maize seeds were women with access to land to plant the seeds. Surprisingly, though the women who received groundnut seed grant were fewer (38.7 percent)[7] compared to men (61.3 percent), the sales assessment shows that 67 percent of the women had surpluses for groundnuts.

In Ikwotos County, farmers had surpluses for all four crops, and men have a higher percentage than women for all the crops as indicated in Figure 2 below. The explanation could be similar to the scenario for Torit.

Figure 2: Percent of Farmers Interviewed who had surplus, by Crop per County



[6] The FARM Project distribution list 2012. Total beneficiaries for Magwi County maize seeds were 1,120, of which 580 were women.

[7] Refer to the FARM Project distribution list 2012. Total Beneficiaries for EES were 2,086, of which 808 were women.

3. KEY RESULTS

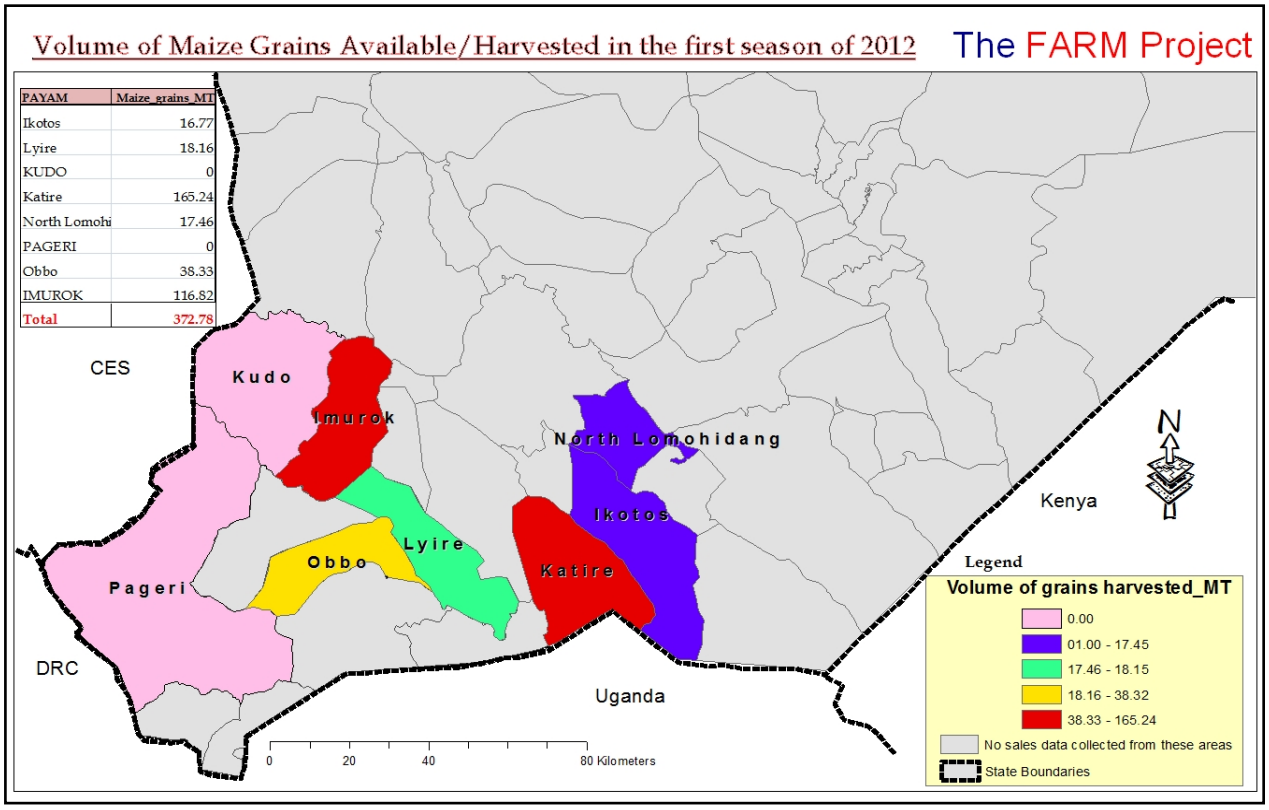
3.1. QUANTITIES PRODUCED PER PAYAM IN FIRST SEASON 2012

One of the objectives of this study is to identify highly productive areas through an understanding of volumes produced and available for sale. Results revealed that 372.77 MT of maize grains, 186.32 MT of sorghum grains, 103.67 MT of unshelled groundnuts, and 482 bags of fresh cassava was available in storehouses; quantities per payam are summarized in Table 1 below.

Table 1: Volumes Available in First Season 2012

Payam	Maize Grain (MT)	Sorghum Grain (MT)	Unshelled Groundnuts (MT)	Fresh Cassava (100kg bags)
Ikwotos Central	16.77	77.47	0.50	0.00
Lyire	18.16	0.00	0.54	0.00
Kudo	0.00	0.00	2.97	0.00
Katire	165.24	95.27	55.62	482.00
Lomohidang North	17.46	13.59	37.68	0.00
Pageri	0.00	0.00	5.01	0.00
Obbo	38.33	0.00	1.35	0.00
Imurok	116.82	0.00	0.00	0.00
Total	**372.77**	**186.32**	**103.67**	**482.00**

Figure 3: Maize Production Areas in Three Counties of Eastern Equatoria State



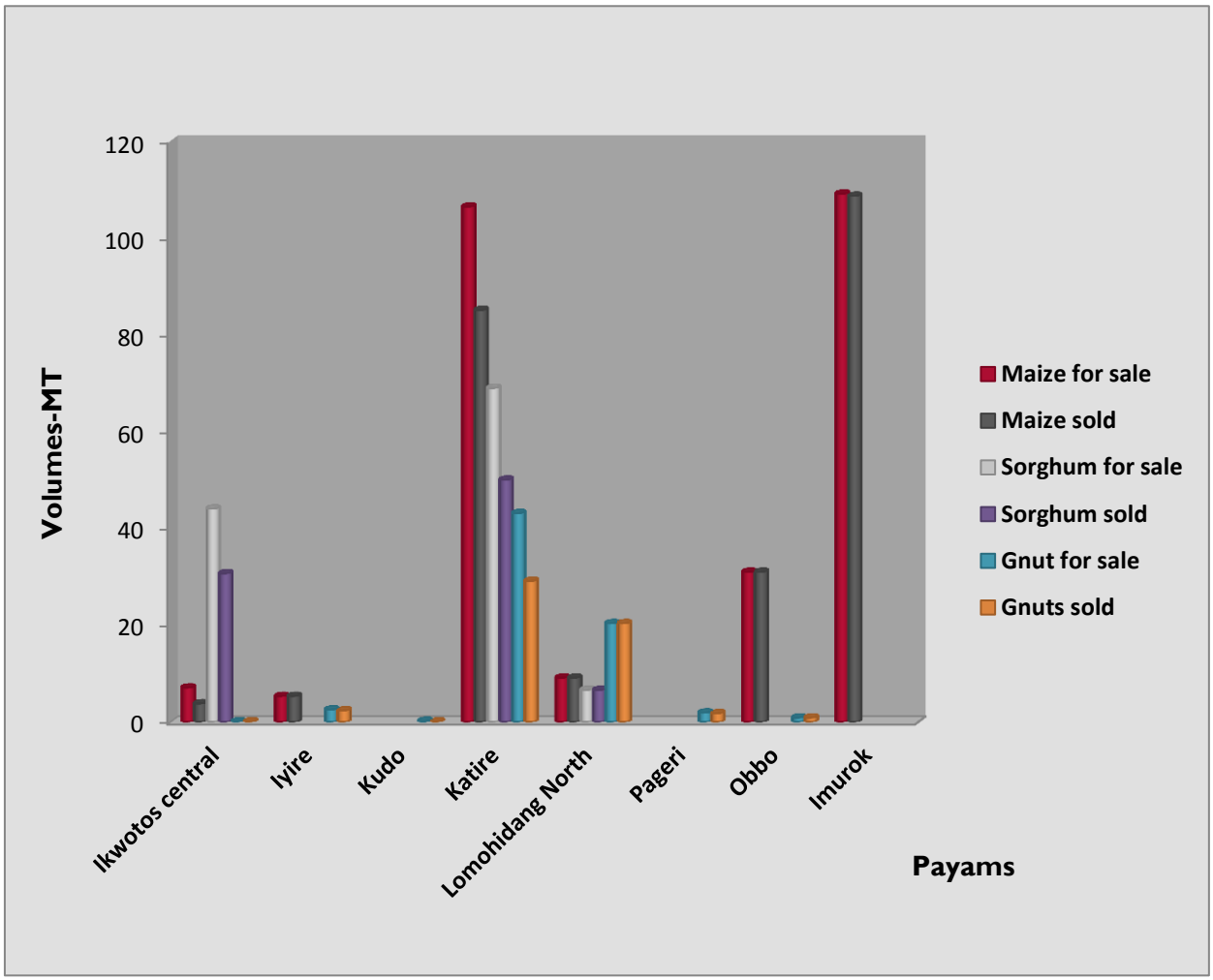
3.2. PRODUCE TRANSACTION

The farmers were not offering all the above volumes for sale. This may be because they reserved some[8] for consumption or as seeds, marketing surpluses for further investment in agriculture, or to provide basic needs for their families. From the data analysis, the total volumes of produce offered for sale in the six payams were as follows: maize grain 268.38 MT, sorghum grain 119.84 MT, unshelled groundnuts 69.6 MT, and fresh cassava roots 359 bags (100 kg). Katire and Imurok had the highest quantities of maize and sorghum grains offered for sale.

Katire is a highly productive area with suitable climatic conditions and active farmers. Ikwotos Central Payam has poor access to markets (see following paragraph), hence little is offered to sell. Lyire Payam is one of the newest areas of intervention for the project and could perform better in the second season of 2012, especially after adopting good agronomic practices (GAP) technologies. Overall volumes sold were as follows: maize grain 243.34 MT, sorghum grain 87.55 MT, unshelled groundnuts 55.14 MT, and fresh cassava 337 bags (100 kg). Transactions were conducted at different levels with various value chain actors.

[8] For total volumes, refer to Table 1. Maize grains; Ikotos Central 57 percent, Lyire 70 percent, Katire 36 percent, Lomohidamg North47 percent, Obbo 19 percent, Imurok 7 percent. Sorghum; Ikotos central 43 percent, Katire 28 percent, Lomohidang North 51 percent. Fresh Cassava roots 26 percent. Unshelled groundnuts Ikotos central 72 percent, Lyire 50 percent, Kudo 12 percent, Katire 22 percent, Lomohidang North 46 percent, Pageri 60 percent and Obbo 30 percent.

Figure 4: Produce Offered for Sale and Sold—First Season 2012



3.3. MARKET CHANNELS TARGETED BY FARMERS

Produce disposal is done through four outlets: a) farm gate, b) local markets, c) major markets, and d) farmers' group stores. From the information gathered, 423 farmers in Ikwotos, Magwi, and Torit sold their produce in the local markets within 5 to 20 kilometers, and transport costs range from 10 SSP to 30 SSP per bag (100 kg). In Torit County, 18 farmers sold at farm gate, while in Ikwotos and Magwi, none sold at farm gate. Farmers in Torit County are more accessible to traders because their farms are closer to the road and Torit market than in Magwi or Ikotos. None of the farmers sold in a warehouse since most FBOs do not have functioning warehouses. In most instances, produce is kept in individual houses until it is taken to markets. Although Ikwotos has an accessibility problem, 216 farmers there were able to transport produce to major markets like Torit. This could be because they want to get better price for their produce or to sell them faster. Torit's average price for maize grain was 3.3 SSP/kg (see Table 5) and Ikotos 2.2 SSP/kg (see Table 9).

Table 2: Different Marketing Levels by Farmers in Three Counties

Produce Sold by Farmers at Different Levels				
County	**No. of Farmers Who Sold at Farm Gate**	**No. of Farmers Who Sold at Local Market**	**No. of Farmers Who Sold in FBO Store**	**No. of Farmers Who Sold at Major Market**
Maize Grain				
Ikwotos	0	131	0	78
Magwi	0	62	0	3
Torit	18	228	0	1
Sorghum Grain				
Ikwotos	1	183	0	62
Fresh Cassava Roots				
Ikwotos	4	19	0	30
Unshelled Groundnuts				
Ikwotos	0	202	7	46
Magwi	0	30	0	0
Torit	0	8	0	0
Total	**23**	**863**	**7**	**220**

3.4. MARKET LINKAGES

Farmers target prominent and active value chain actors in Ikotos, Magwi, and Torit for the sale of their produce: traders, nongovernmental organizations (NGOs), companies, and the community.[9] For sustainable business relationships, traders are the best option for the farmers. A total of 509 farmers in the three counties were linked to traders, 293 sold to the community, and 35 transacted with NGOs. To further rekindle business relations and follow-ups, farmers exchanged contacts with the traders (See the list of traders and contacts in Annex 2). Torit County has the highest number of farmers linked to traders: 202. None of the farmers sold to a company; no specialized company currently purchases agricultural produce in all of South Sudan. Maize is the most widely traded commodity by traders, accounting for 80 percent of the trade in these four commodities.

[9] Those who produce very little food which doesn't sustain them for a whole season

Figure 5: Number of Farmers Who Sold Produce to Market Actors

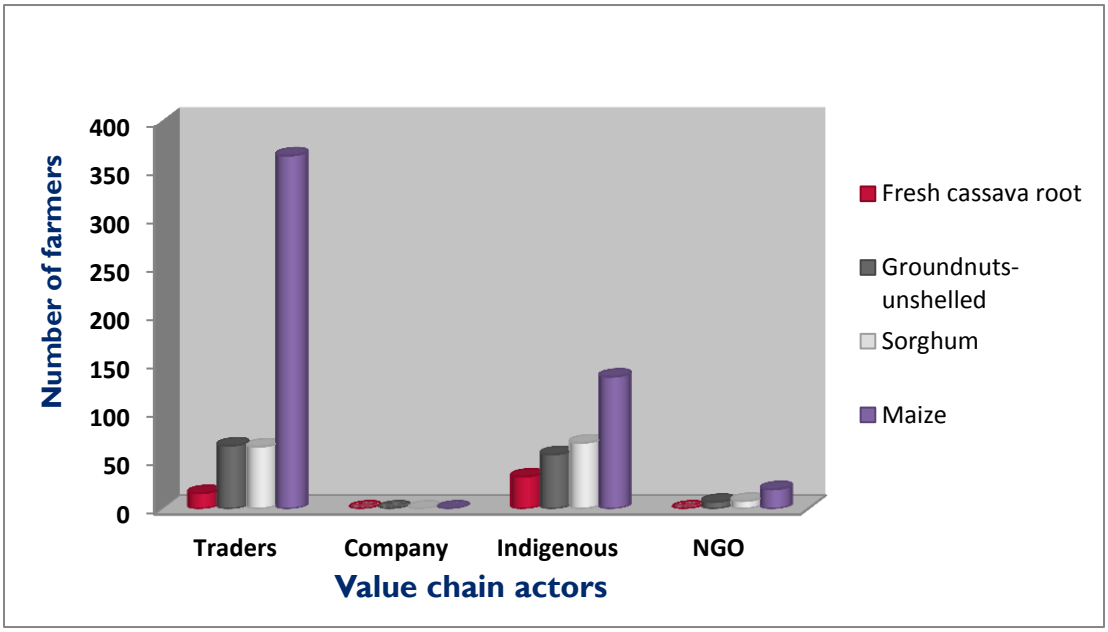


Table 3: Volumes of Produce Purchased by Traders

Produce	Major Market	Local Market	Total
Maize Grain (Kg)	29,340	120,285	149,625
Sorghum Grain (Kg)	2,160	8,460	10,620
Unshelled Goundnuts (Kg)	18,345	1,000	19,345
Fresh Cassava Roots (bags)	70	15	85

Out of 482 bags of fresh cassava available, only 85 were purchased by traders. This is because fresh cassava roots are perishable and costly to transport.

3.5. MODE OF EXCHANGE

The assessment showedthat all crops were sold for cash; credit is not a common phenomenon. One incident of barter was noted in Kudo Payam, where Mr. Micheal Turisio of Amurio Hutok 2 Farmers Group exchanged three bundles of sorghum head for a goat. Contracts are also uncommon; South Sudan has no factories or private companies dealing in agricultural commodities to offer marketing opportunities.

3.6. QUANTITIES SOLD AND REVENUE OBTAINED

Many farmers do not sell to traders but market their own produce as shown in the following tables. The data in Table 4 and Table 5 shows that for maize, the smallest quantity sold was from Magwi. However, the highest volume sold for an individual was also from Magwi. Maize prices vary significantly, with the

highest prices in Torit and the lowest prices in Magwi, reflecting the greater difficulty farmers face in getting produce to markets in Magwi. Sorghum was only found in Ikotos.

Table 4: Total Volumes Sold and Revenue from Sale of Maize Grain

County	Gender	Total Quantity Sold (Kg)	Total Revenue (SSP)	Price per Kilogram		
				Minimum	Average	Maximum
Torit	Male	89,010	293,160	1.33	3.25	3.33
	Female	21,150	70,500	3.33	3.33	3.33
Magwi	Male	9,810	16,166	0.83	1.51	3.33
	Female	21,105	40,185	1.00	1.70	3.33
Ikotos	Male	57,460	133,202	0.04	2.24	3.33
	Female	38,610	84,755	0.22	2.22	3.33
Total		**237,145**	**637,968**	**1.125**	**2.367**	**3.33**

Table 5: Maximum Volumes Sold and Revenue for Maize Grain (per Farmer per County)

County	Torit		Magwi		Ikotos	
	Maximum (Kg)	Maximum Revenue (SSP)	Maximum (Kg)	Maximum Revenue (SSP)	Maximum (Kg)	Maximum Revenue (SSP)
Male	1,350	4,500	2,430	4,860	1,170	3,250
Female	1,260	4,200	2,250	4,000	1,350	3,000

Table 6: Total Volumes Sold and Revenue from Sale of Sorghum Grain

County	Gender	Total Quantity Sold (Kg)	Total Revenue (SSP)	Price (SSP/Kg)		
				Minimum	Average	Maximum
Ikotos	Male	55,687.50	98,875	1.0	1.5	3.2
	Female	31,130.00	57,115	1.2	1.5	2.5

Table 7: Maximum Volumes and Revenue Obtained per Farmer from Sorghum Grain (by Gender)

Gender	Ikotos	
	Maximum (Kg)	Maximum Revenue (SSP)
Male	2,250	3,500
Female	1,125	2,000

Table 8: Total Volumes Sold and Revenue Received from Unshelled Groundnuts

County	Gender	Total Quantity Sold (Kg)	Total Revenue (SSP)	Price/Kg (SSP)		
				Minimum	Average	Maximum
Torit	Male	225.0	1,028	2.50	4.23	5.50
	Female	180.0	604	5.06	5.06	5.06
Magwi	Male	1,125.0	4,985	0.78	3.67	7.78
	Female	1,260.0	4,330	0.42	1.46	3.10
Ikotos	Male	27,585.0	70,734	1.10	3.05	4.00
	Female	17,572.5	54,680	1.10	3.05	4.00
Total		**47,947.5**	**136,361**			

Note: The total volume of unsold groundnuts is 69.6MT. Twenty farmers were dropped from the analysis because it was not clear from the name whether they were male or female.

Table 9: Maximum Volumes and Revenue Obtained per Farmer from Unshelled Groundnuts

Gender	Torit		Magwi		Ikotos	
	Maximum (Kg)	Maximum Revenue (SSP)	Maximum (Kg)	Maximum Revenue (SSP)	Maximum (Kg)	Maximum Revenue (SSP)
Male	90	400	180	720	6,750	7,500
Female	45	228	315	1260	540	1,920

Table 10: Total Volumes Sold and Revenue Received from Fresh Cassava Roots

County	Gender	Total Quantity Sold (Bags)	Total Revenue (SSP)	Price/Bag (100 kg) (SSP)		
				Minimum	Average	Maximum
Ikotos	Male	211	26,375	85	120	180
	Female	126	15,330	75	112	160

Table 11: Maximum Cassava Volumes and Revenue by Gender (Ikotos)

Gender	Ikotos	
	Maximum Bags (100 Kg)	Maximum Revenue (SSP)
Male	10	1,800
Female	15	2,400

4. LESSONS LEARNED

- As a methodology, this approach is too slow to be useful to enhance linkages between farmers and traders. Data was receivedthree months after the harvest, making it impossible to find the unsold produce.
- Of the crops that were assessed, traders are primarily interested in marketing maize.
- Farmers have a significant preference for marketing in local markets. There are very few farm gate sales and almost no aggregation of commodities.
- Cassava is primarily a food security crop, with very little being traded.
- The cost benefit of trying to reach all the project farmers in the state has to be weighed against having a smaller sample with in-depth assessments.
- As a result of this activity and the wide range of reported prices, the project has initiated market price data collection.
- Ikwotos County has the highest potential, followed by Magwi, and then Torit

5. RECOMMENDATIONS

Despite good information gathered from this exercise, this method can't be used as a tool to determine surpluses available for marketing since it takes too long to gather, enter, analyze, and disseminate the information collected. The project has introduced smart phone technology to collect information on available surplus production which can be collected and shared in a much more timely manner.

6. CONCLUSIONS

Farmers and traders are already rebuilding sustainable business relationship that were broken during the two-decade war. Over half (58 percent) of the farmers sold their produce to traders, and some of them exchanged contacts. From the six payams, Katire and Imurok had higher maize production during the 2012 first season. Though Imurok was a new area of intervention, farmers have worked hard in the first season to produce maize grain.

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ANNEX 1: SALES SURVEY TOOL

Date……..Farmers name…… FBO name…….. County ……Payam……., survey……..									
Form E: Sales									
	Maize		Sorghum		Groundnut		Cassava		
Sales	On cob	Grain	Heads/ Bundles	Grain	Shelled	Unshelled	Fresh root	Chips	
Quantity available									
Quantity offered for sale									
Quantity sold									
Unit									
Unit price									
KG/Unit									
How was it sold?	Farm gate	Local market	Farm gate	Local market	Farm gate	Local market	Farm gate	Local market	
	FBO store	Contract	FBO Store	Contract	FBO Store	Contract	FBO Store	Contract	
	Major market		Major market		Major market		Major market		
If sold in a local or major market, what is the name of the market?									
What is the distance of the market from the place where the produce was stored?									

How much is the cost of transport per bag?								
Sold to who	Trader	Company	Trader	Company	Trader	Company	Trader	Company
	NGO	Indigenous	NGO	Indigenous	NGO	Indigenous	NGO	Indigenous
Name and contact of the trader/company								
NGO/indigenous to which the produce is sold								
Mode of transaction	Cash	Credit	Cash	Credit	Cash	Credit	Cash	Credit
	Barter	Contract	Barter	Contract	Barter	Contract	Barter	Contract

ANNEX 2: LIST OF TRADERS

No.	Name	Contact	Produce purchased
1.	Emmanuel Lokang	0956978968	Unshelled groundnuts, sorghum grain, cassava, maize grain
2.	Christine Achan	0955074628	Sorghum grain, unshelled groundnuts, maize grain
3.	Kosmas Peter	0956859603	Unshelled groundnuts, sorghum grain, cassava, maize grain
4.	Josephine Kiden	0955367024	Sorghum, unshelled groundnuts, maize
5.	George Lokang	0956135538	Unshelled groundnuts, sorghum, cassava, maize
6.	Omal George	0956874928	Unshelled groundnuts, maize grain
7.	James Mathew	0955367024	Sorghum, unshelled groundnuts, maize grain
8.	Mathias Loyee	0956754803	Sorghum, unshelled groundnuts, maize grain
9.	Thomas Loboi	0955096795	Sorghum grain, unshelled groundnuts, cassava, maize grains
10.	Joseph Lomana	0955186036	Unshelled groundnuts, sorghum, maize grains
11.	James Sevekit	0955583162	Unshelled groundnuts, sorghum, and maize grains
12.	Augustine Satiro	0919193029	Unshelled groundnuts, maize grains
13.	Martin Marksoda	0955096562	Sorghum, maize grains
14	Ben Michael	0919186492	Maize grains
15	Amelia Imoya	0956487899	Maize grains, cassava, unshelled groundnuts
16	Emmanuel Lokang	0956978968	Maize grains

ANNEX 3: MAIZE MARKETING CHAIN IN EASTERN EQUATORIA STATE—2012 SEASON

Market Chain	Response	EES	County			
			Ikotos	Lofan	Magwi	Torit
Farmers who sold at farm gate	Yes	18	0	0	0	18
	No	566	259	2	72	233
Farmers who sold in the local market	Yes	423	131	2	62	228
	No	154	125	0	9	20
Farmers who sold at FBO store	Yes	0	0	0	0	0
	No	0	0	0	0	
Farmers who sold in a major market	Yes	82	78	0	3	1
	No	498	177	2	69	250
Farmers who sold on contract	Yes	0	0	0	0	0
	No	0	0	0	0	0
Farmers who sold to a trader	Yes	364	77	2	43	242
	No	220	182	0	29	9
Farmers who sold to a company	Yes	2	2	0	0	0
	No	582	257	2	72	251
Farmers who sold to the indigenous	Yes	136	112	0	20	4
	No	448	147	2	52	247
Farmers who sold to an NGO	Yes	20	14	0	6	0
	No	564	245	2	66	251
Farmers paid cash for their maize	Yes	522	205	2	65	250
	No	59	51	0	7	1
Farmers who bartered	Yes	0	0	0	0	0
	No	0	0	0	0	0
Farmers whose maize taken on credit	Yes	0	0	0	0	0
	No	0	0	0	0	0
Farmers whose maize was contract paid	Yes	0	0	0	0	0
	No	0	0	0	0	0

ANNEX 4: SORGHUM MARKETING CHAIN IN EASTERN EQUATORIA STATE—2012 SEASON

Market Chain	Response	EES	County
			Ikotos
Farmers who sold at farm gate	Yes	1	1
	No	348	348
Farmers who sold in the local market	Yes	183	183
	No	166	166
Farmers who sold at FBO store	Yes	0	0
	No	349	349
Farmers who sold in a major market	Yes	62	62
	No	287	287
Farmers who sold on contract	Yes	0	0
	No	349	349
Farmers who sold to a trader	Yes	64	64
	No	285	285
Farmers who sold to a company	Yes	0	0
	No	349	349
Farmers who sold to the indigenous	Yes	68	68
	No	281	281
Farmers who sold to an NGO	Yes	8	8
	No	341	341
Farmers paid cash for their maize	Yes	348	348
	No	1	1
Farmers who bartered	Yes	1	1
	No	348	348
Farmers whose maize taken on credit	Yes	0	0
	No	349	349
Farmers whose maize was contract paid	Yes	0	0
	No	349	349

ANNEX 5: GROUNDNUTS MARKETING CHAIN IN EASTERN EQUATORIA STATE—2012 SEASON

Market Chain	Response	EES	County		
			Ikotos	Magwi	Torit
Farmers who sold at farm gate	Yes	0	0	0	0
	No	240	202	30	8
Farmers who sold in the local market	Yes	78	67	5	6
	No	162	135	25	2
Farmers who sold at FBO store	Yes	7	7	0	0
	No	233	195	30	8
Farmers who sold in a major market	Yes	46	46	0	0
	No	194	156	30	8
Farmers who sold on contract	Yes	0	0	0	0
	No	223	185	30	8
Farmers who sold to a trader	Yes	65	62	0	3
	No	175	140	30	5
Farmers who sold to a company	Yes	0	0	0	0
	No	240	202	30	8
Farmers who sold to the indigenous	Yes	56	54	2	0
	No	184	148	28	8
Farmers who sold to an NGO	Yes	7	5	2	0
	No	233	197	28	8
Farmers paid cash for their maize	Yes	2	2	0	0
	No	240	200	30	8
Farmers who bartered	Yes	0	0	0	0
	No	240	202	30	8
Farmers whose maize taken on credit	Yes	0	0	0	0
	No	240	202	30	8
Farmers whose maize was contract paid	Yes	0	0	0	0
	No	240	202	30	8

ANNEX 6: CASSAVA MARKETING CHAIN IN EASTERN EQUATORIA STATE—2012 SEASON

Market chain	Response	EES	County
			Ikotos
Farmers who sold at farm gate	Yes	4	4
	No	52	52
Farmers who sold in the local market	Yes	19	19
	No	37	37
Farmers who sold at FBO store	Yes	0	0
	No	56	56
Farmers who sold in a major market	Yes	30	30
	No	26	26
Farmers who sold on contract	Yes	0	0
	No	0	0
Farmers who sold to a trader	Yes	16	16
	No	40	40
Farmers who sold to a company	Yes	0	0
	No	0	0
Farmers who sold to the indigenous	Yes	33	33
	No	23	23
Farmers who sold to an NGO	Yes	0	0
	No	0	0
Farmers paid cash for their maize	Yes	56	56
	No	0	0
Farmers who bartered	Yes	0	0
	No	56	56
Farmers whose maize taken on credit	Yes	0	0
	No	56	56
Farmers whose maize was contract paid	Yes	0	0
	No	56	56